

REMARKS

The Office Action mailed August 25, 2005, has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 1-12 and 31-42 are now pending.

Claims 13-30 have been withdrawn from consideration as the result of an earlier restriction requirement.

Claims 4, 5, 34, and 35 have been amended to overcome the 35 U.S.C. §112 issues.

Claims 1, 2, 4, 6, 9-12, 31, 32, 34, 36, and 39-42 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the Specification, page 17 lines 10 to 14. No “new matter” has been added by the Amendment.

The text of Claims 3, 7-8, 33, 35, and 37-38 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 43-48 have been added, which also particularly point out and distinctly claim subject matter regarded as the invention. Claims 43, 44, 45, 46, 47, and 48 are means-plus-function claims corresponding to apparatus claims 1, 4, 6, 31, 34, and 36, respectively.

In view of the Examiner’s earlier restriction requirement, Applicant retains the right to present Claims 13-30 in a divisional Application.

The 35 U.S.C. § 112, Second Paragraph Rejection

Claims 4, 5, 34, and 35 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter Applicant regards as the invention.¹ Claims 5 and 35 depend from Claims 4 and 34, respectively. With this Amendment, Claims 4 and 34 have been modified as suggested by the Examiner in paragraph 8 of the Office Action. Thus, the Applicants respectfully request the 35 U.S.C. § 112 rejection as to Claims 4, 5, 34, and 35 be withdrawn.

The 35 U.S.C. § 102 Rejection

Claims 1-5 and 31-35 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Ben-Dor et al.² This rejection is respectfully traversed.

According to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102(a), (b) and (e) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.³

Claim 1

Claim 1 as amended recites:

A universal serial bus (USB) remote host control driver, comprising:
 a port for connecting to a network, said port configured to couple over said network one or more USB device adapters, each of said device adapters having a discrete network address, to said remote host control driver;
 a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets; and

¹ Office Action dated August 25, 2005, ¶ 7.

² U.S. Publication No. 2002/014148 ("Ben-Dor").

³ Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

a memory for simultaneously storing the discrete network address(es) and a corresponding identifier of each USB device connected via a respective USB device adapter to the driver.

The Examiner states:

...Ben-Dor shows a USB remote host control driver (fig. 1C, 204, and paragraph 46), comprising:

- a connection to a network (201), said network further connecting to one or more USB device adapters (RPS 205), each of said device adapters (205) having a discrete network address (fig. 1c, and paragraphs 41-42);
- a network protocol stack, said protocol stack for encapsulating USB packets in network
- packets and for decapsulating USB packets from network packets (paragraphs 42 and 71); and
- a memory for storing the network address of each of said device adapters and for storing an identification of each USB device connected to each of said device adapters (paragraphs 63-64 and 156-172).⁴

With respect to the Applicant's argument that Ben Dor et al. says nothing about "storing an identification of each USB device connected to each of said device adapters", the Examiner states:

Ben-Dor clearly discloses that RPS announcement packets are sent to the remote host control driver (multicast to interested hosts) (Par 159). Ben-Dor further discloses that these packets may include topology maps of the local USB bus (Par 171). By virtue of listening to these packets alone, there is a memory present in the remote control host driver that stores an identification of each USB device connected to each device adapter while it is being read. Furthermore, in order to remember the devices for communication in the future, the remote host control driver must have a long term storage location in which to store the identifiers of the devices, since the identifiers are required for communication with the devices (Par 64).⁵

The Applicants respectfully disagree. The Examiner's statement "By virtue of listening to these packets alone, there is a memory present in the remote control host driver that stores an

⁴ Office Action, ¶ 11.

⁵ Office Action ¶ 2.

identification of each USB device connected to each device adapter while it is being read”

ignores the language of Claim 1, which requires that the memory store (1) the network address of *each* of said device adapters and (2) an identification of *each* USB device connected to *each* of said device adapters. This storage must be simultaneous. Claim 1 has been amended to make this distinction more clear.

Furthermore, the Examiner’s statement “in order to remember the devices for communication in the future, the remote host control driver must have a long term storage location in which to store the identifiers of the devices, since the identifiers are required for communication with the devices” presumes Ben-Dor teaches configuring a remote control host driver so that it is capable of communicating with *each* USB device connected to *each* device adapter. This premise is simply false. While Ben-Dor teaches “Interested network hosts (or other Remote Peripheral Servers) listen to the tunneling multicast port for RPS Announcement Packets (RAPs) in order to determine the location and configuration of Remote Peripheral Servers”⁶, it does not teach configuring a remote control host driver so that it is capable of communicating with *each* USB device connected to *each* device adapter. The Examiner is reminded that the mere absence from a reference of an explicit requirement of a claim cannot be reasonably construed as an affirmative statement that the requirement is in the reference.⁷

For the above reasons, the 35 U.S.C. § 102 rejection of claim 1 is unsupported by the art and must be withdrawn.

⁶ Ben-Dor, ¶ 159.

⁷ *In re Evanega*, 829 F.2d 1110, 4 USPQ2d 1249 (Fed. Cir. 1987).

Dependent Claims 2 and 3

Claims 2 and 3 depend from claim 1. Claim 1 being allowable, Claims 2 and 3 must be allowable for at least the same reasons.

Claim 2

Claim 2 recites:

The USB remote host control driver of claim 1, further comprising:
a polling routine, said polling routine configured to contact each of said device adapters,
identify each of said USB devices, and store the identifications in said memory.

The Examiner states:

... Ben-Dor shows a polling routine, said polling routine contacting each of said device adapters, identifying each of said USB devices, and storing the identifications in said memory (paragraphs 164-165).⁸

The Applicants respectfully disagree. Contrary to the Examiner's statement, Ben-Dor et al. does not teach storing the identifications in said memory. As mentioned above, Ben-Dor et al. says nothing about storing the network address of each device adapter, and storing an identification of each USB device connected to each of device adapter where the storing of the network address of each device adapter and the storing of an identification of each USB device connected to each device adapter is simultaneous. For this additional reason, the 35 U.S.C. § 102 rejection of Claim 2 is unsupported by the art and must be withdrawn.

Claim 4

Claim 4 as amended recites:

A universal serial bus (USB) device adapter comprising:

⁸ Office Action, ¶ 12.

one or more USB ports, said one or more USB ports configured for connection to a network having a USB remote host control driver having a memory for simultaneously storing a network address of each of one or more device adapters and a corresponding identification of each USB device connected via the respective one or more device adapters;

a memory for storing an assigned network address;

a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets; and

a bridging task for receiving USB packets from one or more USB devices coupled to the respective device adapters and for passing USB device addressing information and said USB packets to said network protocol stack.

The Examiner states:

Regarding claims 4 and 34, Ben-Dor shows a USB device adapter (RPS 205) comprising:

- one or more USB ports (paragraph 41 and 42);
- a connection to a network (201), said network connected to a USB remote host control driver (204) (fig. 1c and paragraph 60);
- a network address (IP address, paragraph 42); and
- a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (paragraph 71).
- a bridging task (USB tunneling redirector) for receiving USB packets (URBs) from one or more USB devices and for passing said USB packets and addressing information (Par 69) to said network protocol stack (Par 73).⁹

With this Amendment, Claim 4 has been amended to recite one or more USB ports configured for connection to a network having a USB remote host control driver having a memory for simultaneously storing a network address of each of one or more device adapters and a corresponding identification of each USB device connected via the respective one or more device adapters. As discussed above with respect to Claim 1, this limitation is not disclosed by the Ben-Dor reference. Consequently, the Applicants respectfully request the 35 U.S.C. § 102 rejection of Claim 4 be withdrawn.

⁹ Office Action, ¶ 14.

Dependent Claim 5

Claim 5 depends from claim 4. Claim 4 being allowable, Claim 5 must be allowable for at least the same reasons.

Claims 31-33

Claims 31-33, drawn to a serial data bus remote host control driver, include limitations similar to Claims 1-3. Claims 1-3 being allowable, Claims 31-33 must also be allowable for at least the same reasons.

Claims 34-35

Claims 34-35, drawn to a serial data bus device adapter, include limitations similar to Claims 4-5. Claims 4-5 being allowable, Claims 34-35 must also be allowable for at least the same reasons.

The 35 U.S.C. § 103 Rejection

Claims 6-12 and 36-42 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ben-Dor et al. in view of Krishnan,¹⁰ among which Claims 6 and 36 are independent claims.¹¹ This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed

¹⁰ U.S. Patent No. 6,157,950.

¹¹ Office Action, ¶ 16.

combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹²

Claim 6

Claim 6 as amended recites:

An Internet gateway, comprising:

a port for connecting to the Internet; and

a universal serial bus (USB) remote host control driver, said USB remote host control driver having:

- (a) a port for connecting to a local network, said port configured to couple over said network one or more USB device adapters, each of said device adapters having a discrete network address, to said remote host control driver;
- (b) a local network protocol stack, said protocol stack for encapsulating USB packets in local network packets and for decapsulating USB packets from local network packets;
- (c) a memory for simultaneously storing the discrete network address(es) and a corresponding identifier of each USB device connected via a respective USB device adapter to the driver; and
- (d) a polling routine, said polling routine for contacting each of said device adapters, identifying each of said USB devices, and storing the identifications in said memory.

The Office Action contends that the elements of the presently claimed invention are disclosed in Ben-Dor et al., except that Ben-Dor et al. does not teach an Internet gateway connection to the Internet.¹³ The Office Action further contends that Krishnan teaches an Internet gateway connection to the Internet and that it would be obvious to one having ordinary skill in the art at the time of the invention to incorporate Krishnan into Ben-Dor et al. in order to provide a remote use located at a remote location a method for accessing devices and peripherals from the remote location over the Internet.¹⁴ The Applicants respectfully disagree for the reasons set forth below.

¹² M.P.E.P § 2143.

¹³ Office Action, ¶ 17.

¹⁴ Office Action, ¶ 17.

The arguments made above with respect to Claims 1 and 2 apply here as well. Contrary to the Examiner's statement, neither Ben-Dor et al. nor Krishnan teach or disclose a universal serial bus (USB) remote host control driver comprising a memory for storing the network address of each of one or more USB device adapters *and* for storing an identification of each USB device connected to each of said device adapters, where the storing of the network address of each of said device adapters and said storing of an identification of each USB device connected to each of said device adapters is simultaneous.

For the above reasons, the 35 U.S.C. § 103 rejection of claim 6 over Ben-Dor et al. in view of Krishnan is unsupported by the art and must be withdrawn.

Dependent Claims 7-12

Claim 7-12 depend from claim 6. Claim 6 being allowable, Claims 7-12 must be allowable for at least the same reasons.

Claims 36-42

Claims 36-42 include limitations substantially similar to Claims 6-12. Claims 6-12 being allowable, Claims 36-42 must be allowable for at least the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

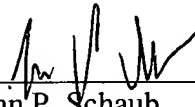
If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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